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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/792,092	PAILA ET AL.	
	Examiner	Art Unit	
	Kenan Cehic	~~2609~~ 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 March 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/ are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *07/28/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of the Claims

1. The amended claims filed on 11/26/2007 have been entered.

The scope of claim 1 and 13 have been changed (claim 1 "configured to control messages" etc. ; claim 13 "plurality of multicast controller to a plurality of recipients.....configured to route" etc). New claim 16 has been added.

Claim Objections

2. Claims 1-12, 16 are objected to because of the following informalities:

For claim 1, "the control messages" in line 10 is the first occurrence. It is suggested to change this to –control messages--.

For claim 1, "the cell-level multicast controllers" is the first occurrence. It is suggested to change this to -- cell-level multicast controllers--.

Claim 2-12 are objected since they depend on and objected claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 2-8, 11-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For claim 2, " the at least one multicast tree configured for the control messages" in line 3 has no antecedent basis. Similar problems exist in claim 3 lines 3, claim 11 lines 3, claim 12 line 3.

For claim 4, "at least one multicast tree" in line 4 lack antecedent basis. It is not clear which multicast tree the applicant if referring to.

For claims 5-8, "the transmitting" in line 1, lacks antecedent basis. The limitation is ambiguous, since it is not known if the transmitting of multicast packets or transmitting of control messages is referred to (of claim 1).

For claim 13 "a plurality of routers configured to transmit of different components" in line 3-4 is not clear.

Rejected claims are rejected since they depend on rejected claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-9, 11, 13-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Farinacci et al. (US 2006/0203819). Hereinafter referred as Farinacci.

For claim 1, Farinacci disclose a method compromising: transmitting multicast data packets in at least one first multicast tree (see section 0010 "parses the multicast delivery tree information written into the SGM packet, learns the new next router in the multicast delivery tree, then transmits...to the new next router") from one transmitter (see section 0010 "source end station....SGM source router") through a plurality of multicast controllers (see section 0010 "next router....new next router....destination router") to a plurality of recipients (see section 0010 "next router....new next router....destination router....intermediate router....end station")

generating at least one second multicast tree (see section 0010-0011 "transmit the SGM packet to the next router in the multicast delivery tree") configured to control messages (see section 0009-0011 "SGM packet.... transmit the SGM packet to the next router in the multicast delivery tree...learns new next router in the multicast delivery tree....SGM packets along the multicast delivery tree") in an internet protocol network (see Figure 2a and sections 0047 and 0048; packets with IP addresses are used, thus IP network and fig 10; 10,000) from a network multicast controller (see section 0010 "SGM source router") to at least one multicast controller at cell level (see section 0010 "next router....new next

router....destination router"); and transmitting the control messages (see section 0009-0011 "SGM packet.... transmit the SGM packet to the next router in the multicast delivery tree....original multicast packet ") from the network multicast controller (see section 0010 "SGM source router") along the at least one second multicast tree (see section 0010-0011 "transmit the SGM packet to the next router in the multicast delivery tree...next router in the multicast delivery tree... SGM packets along the multicast delivery tree") to the at least one multicast controller at cell level (see section 0010 "next router....new next router....destination router"), the control messages (see section 0009-0011 "SGM packet.... transmit the SGM packet to the next router in the multicast delivery tree...learns new next router in the multicast delivery tree") comprising containing information on the multicast transmission (see section 0010 -0011 "multicast delivery tree information") of the internet protocol network (see Figure 2a and sections 0047 and 0048; packets with IP addresses are used, thus IP network and fig 10; 10,000) and a command configured to connect to the at least one first multicast tree (see section 0010 "parses the multicast delivery tree information written into the SGM packet, learns the new next router in the multicast delivery tree, then transmits...to the new next router") of the internet protocol network (see Figure 2a and sections 0047 and 0048; packets with IP addresses are used, thus IP network and fig 10; 10,000) configured intended for multicasts (see section 0010 "parses the multicast delivery tree information written into the SGM packet, learns the new next router in the multicast delivery tree, then transmits...to the new next router") .

For claim 2, Farinacci teaches connecting (see section 0010 "parses the multicast delivery tree information written into the SGM packet, learns the new next router in the multicast delivery tree, then transmits...to the new next router"), when connecting to the internet protocol network (see section 0030 starting at line 15 to section 0035 line 3; the router are connecting to the network displayed), the cell-level multicast controller (see section 0010 "next router....new next router....destination router") to the multicast tree intended for the network control messages (see section 0010 "parses the multicast delivery tree information written into the SGM packet, learns the new next router in the multicast delivery tree, then transmits...to the new next router").

For claim 3, Farinacci teaches connecting (see section 0010 "parses the multicast delivery tree information written into the SGM packet, learns the new next router in the multicast delivery tree, then transmits...to the new next router") after receiving a control message from the network multicast controller (see section 0010 "parses the multicast delivery tree information written into the SGM packet, learns the new next router in the multicast delivery tree, then transmits...to the new next router") through the at least one multicast tree configured for the control messages (see section 0010 "parses the multicast delivery tree information written into the SGM packet, learns the new next router in the multicast delivery tree, then transmits...to the new next router"), the at least cell-level multicast controller (see section 0010 "next router....new next router....destination router") to the at least one network multicast tree (see section 0010 "multicast delivery tree") configured for multicasts (see section 0010 lines 8-12; the lower level router learns

from the SGM indicator, how to transmit the SGM packet (a multicast packet) to the next router, thus connecting to the intended multicast tree; here it happens that the multicast trees for multicast messages is one part/same instance of the tree for control messages) and defined in the control message (see section 0010 lines 8-12, the router reads the indication signal and connects to rest of multicast tree intended for multicast)

For claim 4, Farinacci teaches transmitting after connecting to the at least one multicast tree (see section 0010 "parses the multicast delivery tree information written into the SGM packet, learns the new next router in the multicast delivery tree, then transmits...to the new next router") configured for multicasts (see section 0010 lines 8-12; the lower level router learns from the SGM indicator, how to transmit the SGM packet (a multicast packet, thus a connection was made) to the next router, thus connecting to the rest of the multicast tree), by the at least one cell-level multicast controller (see section 0010 "next router....new next router....destination router") packets received through the at least one multicast tree (see section 0010 to at least one receivers in a cell (see section 0010 lines 8-16, SGM packets are sent to the end station).

For claim 5, Farinacci teaches wherein the transmitting (see section 0009-0011 "SGM packet.... transmit the SGM packet to the next router in the multicast delivery tree...learns new next router in the multicast delivery tree....SGM packets along the multicast delivery tree") comprises transmitting the control messages (see section 0009-0011 "SGM packet.... transmit the SGM packet to the next router in the multicast delivery tree...learns new next router in the multicast delivery tree....SGM packets along

the multicast delivery tree") further comprising information on an identifier of one or more multicast groups (see section 0010 "multicast delivery tree information" indicator about the delivery tree information of a multicast group is embedded).

For claim 6, Farinacci teaches wherein the transmitting (see section 0009-0011 "SGM packet.... transmit the SGM packet to the next router in the multicast delivery tree...learns new next router in the multicast delivery tree....SGM packets along the multicast delivery tree") comprises transmitting the control messages (see section 0009-0011 "SGM packet.... transmit the SGM packet to the next router in the multicast delivery tree...learns new next router in the multicast delivery tree....SGM packets along the multicast delivery tree") further comprising (see Figure 2b, the header is part of the SGM packet described in section 0010) information on the time of validity of the control message (see section 0060 and Figure 2b, reference "TTL"; the SGM packet header includes a time to live field which tells the IP network for how long the packet is to stay alive until it is discarded)

For claim 7, Farinacci teaches wherein the transmitting (see section 0009-0011 "SGM packet.... transmit the SGM packet to the next router in the multicast delivery tree...learns new next router in the multicast delivery tree....SGM packets along the multicast delivery tree") comprises transmitting the control messages (see section 0009-0011 "SGM packet.... transmit the SGM packet to the next router in the multicast delivery tree...learns new next router in the multicast delivery tree....SGM packets along the multicast delivery tree") further comprising (see section 0048 and Figure 2a; senders IP address is embedded in a multicast packet (such like a SGM packet)). information on

sender authentication (see section 0048 and Figure 2a; senders IP address is embedded in a multicast packet (such like a SGM packet), the receiver can thus check if it is receiving data from the intended source)

For claim 8, Farinacci teaches wherein transmitting (see section 0009-0011 "SGM packet.... transmit the SGM packet to the next router in the multicast delivery tree...learns new next router in the multicast delivery tree....SGM packets along the multicast delivery tree") comprises transmitting the control messages (see section 0009-0011 "SGM packet.... transmit the SGM packet to the next router in the multicast delivery tree...learns new next router in the multicast delivery tree....SGM packets along the multicast delivery tree") further comprising a receiver filter (see section 0010 lines 2-5 and lines 12-16; the delivery tree information is embedded into the SGM packet, according to which the *intended* station is reached, thus filtering receivers out).

For claim 9, Farinacci teaches registering (see section 0010 lines 8-12, the next router that receives the indication and registers the new next router as receipient of multicast) after receiving a control message (see section 0010 "parses the multicast delivery tree information written into the SGM packet, learns the new next router in the multicast delivery tree, then transmits...to the new next router") from the network multicast controller (see section 0010 lines 8-12; the lower level router receives and reads indication signal), by the cell-level multicast controller (see section 0010 "next router....new next router....destination router") a recipient of a multicast defined in a control message (see section 0010 lines 8-12, the next router that receives the indication and registers the new next router as receipient of multicast).

For claim 11, Farinacci teaches notifying (see section 0010 lines 12-16; the final router submits the original multicast packet to end station without permission, thus the original multicast packet had to be received), after receiving a control message (see section 0010 "parses the multicast delivery tree information written into the SGM packet, learns the new next router in the multicast delivery tree, then transmits...to the new next router") from the network multicast controller (see section 0010 through the at least one multicast tree configured for control messages (see section 0010 lines 8-14; SGM packet with indicator travels down the multicast tree), by the at least one cell-level multicast controller (see section 0010 "next router....new next router....destination router") recipients of its cell that a multicast must be received (see section 0010 lines 12-16; the final router submits the original multicast packet to end station without permission, thus the original multicast packet had to be received).

For claim 13, Farinacci teaches n arrangement (see Figure 1 and section 0030) for implementing multicasting (see section 0009 lines 3-10, multicasting is implemented and section 0010 "multicast packets") in Internet protocol networks (see Figure 2a and sections 0047 and 0048; packets with IP addresses are used, thus IP network and fig 10; 10,000) the arrangement comprising: a plurality of routers (see Figure 1, references R1-R9) configured to transmit (see section 0010 lines 21, different routers are transmitting packets to each other) of different components (see Figure 1, references R1-R9 and section 0010 "receives the multicast packet...writes ...information into the packet.....rewrites the original multicast packet and transmits") in the internet protocol networks (see Figure 2a and sections 0047 and 0048; packets with IP addresses are used,

thus IP network and fig 10; 10,000) to each other (see section 0010 lines 21, different routers are transmitting packets to each other); at least one first multicast tree (see section 0010 "parses the multicast delivery tree information written into the SGM packet, learns the new next router in the multicast delivery tree, then transmits...to the new next router") configured to transmit multicast packets (see section 0010 " multicast packet..." and section 0011 "routing encapsulated SGM packets") through a plurality of multicast controller (see section 0010 "next router....new next router....destination router") to a plurality of recipients (see section 0010 "next router....new next router....destination router....intermediate router....end station") to a plurality of recipients (see section 0010 lines 5-16), a plurality of cell-level multicast controllers (see section 0010 "next router....new next router....destination router") configured (see section 0010 lines 5-12) to transmit packets to the plurality of receivers (see section 0011 lines 17-22, multicast packets are sent down the delivery tree, see section 0010 "next router....new next router....destination router....intermediate router....end station"), a network multicast controller (see section 0010 lines 2-5, " SGM source router") that is arranged to control the cell-level multicast controllers (see section 0010, the downstream router operate according to the SGM indicator embedded by the source router) , wherein an internet protocol network (see Figure 2a and sections 0047 and 0048; packets with IP addresses are used, thus IP network and fig 10; 10,000) comprises at least one second multicast tree (see section 0010-0011 "transmit the SGM packet to the next router in the multicast delivery tree") configured to route control messages (see section 0010, SGM packet indicator is sent along the multicast tree) from the network multicast controller (see

section 0010 lines 2-5, " SGM source router") to the plurality of cell-level multicast controllers (see section 0010 "next router....new next router....destination router"), the network multicast controller (see section 0010 lines 2-5, " SGM source router") configured to transmit control messages (see section 0009-0011 "SGM packet.... transmit the SGM packet to the next router in the multicast delivery tree....original multicast packet ") along the at least one second multicast tree (see section 0010-0011 "transmit the SGM packet to the next router in the multicast delivery tree") to the plurality of cell-level multicast controllers (see section 0010 "next router....new next router....destination router") and the control messages (see section 0009-0011 "SGM packet.... transmit the SGM packet to the next router in the multicast delivery tree....original multicast packet ") compromise information on the multicast transmission of the internet protocol network (see section 0010, the SGM packet contains the delivery tree information) and a command configured to connect to the at least one first multicast tree (see section 0010 "parses the multicast delivery tree information written into the SGM packet, learns the new next router in the multicast delivery tree, then transmits...to the new next router") of the internet protocol network (see Figure 2a and sections 0047 and 0048; packets with IP addresses are used, thus IP network and fig 10; 10,000) configured for multicast transmissions (see section 0010; the lower level router learns from the SGM indicator, how to transmit the SGM packet (a multicast packet) to the next router, thus connecting to the rest of the multicast tree; here it happens that the multicast trees for multicast messages is one part of the tree for control messages).

For claim 14, wherein the cell-level multicast controller (see section 0010 "next router....new next router....destination router") is configured to connect to the multicast tree (see section 0010-0011 "transmit the SGM packet to the next router in the multicast delivery tree") configured for network control messages (see section 0010; the new next router was connected to the network (the "next router") based on the delivery tree information and "transmit the SGM packet to the next router in the multicast delivery tree") when connecting to an internet protocol network (see section 0030 starting at line 15 to section 0035 line 3; the router are connecting to the network displayed).

For claim 15, Farinacci teaches herein the cell-level multicast controller (see section 0010 "next router....new next router....destination router") is configured to connect to the multicast tree (see section 0010-0011 "transmit the SGM packet to the next router in the multicast delivery tree") of an internet protocol network (see Figure 2a and sections 0047 and 0048; packets with IP addresses are used, thus IP network and fig 10; 10,000) configured for multicasts (see section 0010 lines 8-12; the lower level router learns from the SGM indicator, how to transmit the SGM packet (a multicast packet) to the next router, thus connecting to the rest of the multicast tree; here it happens that the multicast trees for multicast messages is one part of the tree for control messages) after receiving a control message (see section 0010 "SGM packet") from the net work multicast controller (see section 0010 "SGM source router") through the multicast tree (see section 0010-0011 "transmit the SGM packet to the next router in the multicast delivery tree") configured for control messages (see section 0009-0011 "SGM packet.... transmit the

SGM packet to the next router in the multicast delivery tree...learns new next router in the multicast delivery tree....SGM packets along the multicast delivery tree").

For claim 16, Farrinacci discloses an arrangement, comprising: first transmission means for transmitting different components (see Figure 1, references R1-R9 and section 0010 "receives the multicast packet...writes ...information into the packet.....rewrites the original multicast packet and transmits") in internet protocol networks (see Figure 2a and sections 0047 and 0048; packets with IP addresses are used, thus IP network and fig 1; 100) to each other; second transmission means (see fig 1; R3,R6-8) for transmitting multicast packets (see section 0030-36 "source station...transmits data packet to destination stations .... original multicast packet is forwarded to the final multicast destinations") through a plurality of multicast controllers (see fig 1; R3,R6-8) to a plurality of recipients (see fig 1; D1-D5); third transmission means (see fig 1; R3,R6-8) for transmitting packets (see section 0030-0036 "source station...transmits data packet to destination stations....original multicast packet is forwarded to the final multicast destinations") to the plurality of receivers (see fig 1; D1-D5) ; and
control means (see fig 1; 130) for controlling (see section 0030-0036 "R1120...encapsulates the multicast packet....includes...the required delivery tree....router inspects the header to determine the next hop routers and duplicates the packet...forwarding of packets") the cell-level multicast controllers (see fig 1; R2-R9), wherein an internet protocol network (see fig 1; 100 and Figure 2a and sections 0047 and 0048; packets with IP addresses are used, thus IP network) comprises fourth transmission means (see fig 1; R2, R4-5) for routing control messages (see section 0035 "SGM

packets") transmitted from the control means (see fig 1; R1) to the third transmission means (see fig 1; R3, R6-8), the control means (see fig 1; R1) for transmitting the control messages (see section 0035 "SGM packets") along the fourth transmission means (see fig 1; R2, R4-5) to the second transmission means (see fig 1; R3,R6-8), and the control messages (see section 0035 "SGM packets") comprise information on the multicast transmission (see section 0010 "SGM indicator...multicast delivery tree information") of the internet protocol network (see Figure 2a and sections 0047 and 0048; packets with IP addresses are used, thus IP network and fig 1; 100) and a command configured to connect (see section 0030-0036 "R1120...encapsulates the multicast packet....includes...the required delivery tree....router inspects the header to determine the next hop routers and duplicates the packet...forwarding of packets... original multicast packet is forwarded to the final multicast destinations ") to the second transmission means (see fig 1; R3, R6-8) of the internet protocol network (see Figure 2a and sections 0047 and 0048; packets with IP addresses are used, thus IP network and fig 1; 100) configured for multicast transmissions (see section 0030 "small group multicast...delivery tree....multicast packet...multicast destinations...multicast methods").

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Farinacci et al. (US 2006/0203819) in view of Chang et al. (US 2002/0102967 A1).

For claim 10, Farinacci teaches all the claimed invention as described in paragraph 4. Additionally Farinacci teaches after receiving a control message (see section 0010 "SGM packet...original multicast packet") from the network multicast controller (see section 0010 lines 2-5, "SGM source router") and the at least one cell-level multicast controller (see section 0010 "next router....new next router....destination router"). However, Farinacci does not teach that the receipients of the cell are made aware that multicast is available. Chang et al. from the same or similar field of endeavor teaches notifying the

recipients of its cell that a multicast is available (see section 0009 lines 1-5). Thus it would have been obvious to a person of ordinary skill at the time the invention was made to combine the multicast availability feature as taught by Harris into the multicast capable routers as taught by Farinacci. One could have implemented the delivery of the service ID pool via a server, just like Chang et al. teaches, which would be connected to one of the multicast routers as taught by Farinacci, or one could implement a microprocessor into the routers that perform this task. The motivation is that it can be determined which multicast the user might be interested based on the user's profile.

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Farinacci et al. (US 2006/0203819) in view of Dean et al. (US 2003/0061333 A1)

For claim 12, Farinacci teaches all the claimed invention as described in paragraph 4. Additionally, Farinacci teaches after receiving a control message (see section 0010 "SGM packet...original multicast packet") from the network multicast controller (see section 0010 lines 2-8, SGM source router sends the packet with tree information) through the at least one multicast tree (see section 0010-0011 "transmit the SGM packet to the next router in the multicast delivery tree") configured for control messages (see section 0009-0011 "SGM packet.... transmit the SGM packet to the next router in the multicast delivery tree...learns new next router in the multicast delivery tree....SGM packets along the multicast delivery tree"); and the control messages (see section 0009-0011 "SGM packet.... transmit the SGM packet to the next router in the multicast delivery tree...learns new next router in the multicast delivery tree....SGM

packets along the multicast delivery tree") and the at least one cell-level multicast controller (see section 0010 "next router....new next router....destination router")

Farinacci does not teach refraining from processing the control message regarding multicast transmission. Dean et al. from the same or similar field of endeavor teaches that a device refraining from processing the control message regarding multicast transmission (see section 0051 lines 6-9 of Dean et al.). Thus it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the method of disregarding messages about multicast into the communication system as taught by Farinacci. One could have implemented a similar transaction ID as taught by Dean et al. into one of the routers as taught by Farinacci. This could have been done with either implementing a processor in the router or connecting a computer to the router which can accomplish the processing of the transaction ID. The motivation is that once the user has received advertisement from the same vendor/transaction ID, the advertisement is not repeated to the user again.

Response to Arguments

Applicant's arguments filed 11/26/2007 have been fully considered but they are not persuasive.

The applicant generally states that the reference does not teach the claimed invention on pages 11 and 12. On pages 13-16, applicant argues that a single multicast tree is used. However, originally filed claims 1 and 13 (03/04/2004) do not make a distinction that there are more than one *distinctly different multicast trees*.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US-2003/0169708 A1	09-2003	Harris, John M.	370/335
US-2005/0108419 A1	05-2005	Eubanks, Thomas Marshall	709/232
US-6,999,465 B2	02-2006	McDonald et al.	370/432
US-2007/0028002 A1	02-2007	McCanne, Steven	709/238

The above are recited to show methods and systems for multicasting.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenan Cehic whose telephone number is (571) 270-3120. The examiner can normally be reached on Monday through Friday 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KC

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SUPERVISORY PATENT EXAMINER